

Outcomes of International *Cactoblastis cactorum* Conference

International Cooperation:

- Continue the cooperation between USDA APHIS, and ARS with SAGARPA through NAPPO. This includes collaboration on survey techniques, taxonomic issues, eradication methods, and providing sterile insects to the Mexican program.
- Establish the transfer of hand-held data collection technology transfer to SAGARPA from APHIS.
- Widen the information exchange between groups in the US and Mexico
- Consider widening the collaboration to include Caribbean countries.

Widening the detection network:

- Continue or increase the current level of surveys using traps by USDA, APHIS and state departments of agriculture. Increase the level of trapping in Mexican states, especially adjacent to Quintana Roo.
- Establishing more sentinel monitoring sites along the Gulf Coast and southwestern US states is a priority, using volunteers when possible. Questions about the long-term utility of sentinel sites with incentives for continual checking sites.
- Using more volunteer monitoring similar to Arizona Department of Agriculture's cooperation with trained docents at the Arizona Sonora Desert Museum to monitor traps at nurseries.
- Exploring the possibility of developing Spanish version of the MSU Cactus Moth Monitoring and Detection Network website for Mexican counterparts to log-in monitoring information from Mexico
- Raising awareness in Texas with ranchers and hunters. Texas Cooperative Extension, US Fish & Wildlife, The Nature Conservancy, and Texas Parks and Wildlife will work together to explore ways to do this.

Alternative Control Methods to Supplement the Sterile Insect Technique and Host Removal:

- Testing of mating disruption using various formulations of the current sex lure identified by the Agriculture Research Service in Miami.
- Attract and kill technologies may work but better lure may be needed.
- Mass trapping would require the complete pheromone to work.
- Biological control alternatives need to be explored further in order to assess appropriateness of various agents and non-target effects. ARS' Stephen Hight is working with collaborators in Argentina to accomplish this.
- Need to be thinking about an integrated pest management strategy in the event *C. cactorum* becomes more widely established in the southwestern US or Mexico.
- Use of insecticides for managed areas, including with penetrants and surfactants, and timing of Bt applications.

Research Needs:

- More life-table information.
- More refined modeling of generations at various latitudes/climates.
- What are the mortality factors in South American populations?
- More information on host preference needed
- More information about egg mortality and egg-laying behavior
- Efficacy of *Nosema* for biological control
- The role of native biocontrol agents in the US and Mexico.